LISTING OF CLAIMS

This listing of claims will replace all prior versions and listings of claims in the Application.

1. (Cancelled)

2. (Currently Amended) ~~The examination apparatus according to Claim 1 further~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups;

a relay optical system for relaying illumination light for illuminating the specimen; and

a reflecting member held by the image-forming lens, the reflecting member being capable of deflecting the illumination light from the light source toward the relay optical system.

3. (Currently Amended) ~~The examination apparatus according to Claim 1 further~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups;

a relay optical system for relaying illumination light for illuminating the specimen; and

a rotary turret for holding a plurality of dichroic mirrors and a reflecting member which deflect the illumination light from the light source toward the relay optical system and for selectively disposing the dichroic mirrors and the reflecting member opposite the light source.

4. (Currently Amended) The examination apparatus according to Claim 2, wherein the relay optical system is held by the objective lens or the objective-lens switching mechanism.

5. (Currently Amended) The examination apparatus according to Claim 2, wherein the relay optical system splits the illumination light from the light source into two or more beams and emits the two or more beams to the specimen from different directions.

6. (Currently Amended) ~~The examination apparatus according to Claim 1 further~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups; and

a zooming mechanism inserted, on an optical axis, and between an objective lens having a high magnifying power and an image-forming lens having a high magnifying power, when an objective lens having a high magnifying power and an image-forming lens having a high magnifying power are selected.

7. (Original) The examination apparatus according to Claim 6, wherein the zooming mechanism is provided in a manner such that the zooming mechanism is removable from the optical axis when an objective lens having a low magnifying power and an image-forming lens having a low magnifying power are selected.

8. (Currently Amended) ~~The examination apparatus according to Claim 1 further~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups; and

a parfocal adjustment mechanism for adjusting the image location of the image-forming lens.

9. (Currently Amended) ~~The examination apparatus according to Claim 1 further~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups; and

an optical-path bypass unit, disposed on the image-forming lens having a high magnifying power, for bypassing the optical path between the image-forming lens having a

high magnifying power and the image-capturing unit so that the straight-line distance from the image-forming lens to the image-capturing unit is matched with that of the image-forming lens having a low magnifying power.

10. (Currently Amended) The examination apparatus according to Claim 9, wherein optical-path bypass unit is provided with ~~the~~ an optical-path-length adjustment unit capable of adjusting the optical path length thereof.

11. (Currently Amended) The examination apparatus according to Claim 9, wherein the optical-path bypass unit is provided with an angle adjustment unit which is capable of adjusting the inclination angle of the optical axis thereof.

12. (Currently Amended) ~~The examination apparatus according to Claim 1 further~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups; and

an objective parfocal adjustment mechanism for adjusting the position of the objective lens conjugate with the image location of the image-forming lens.

13. (Currently Amended) ~~The examination apparatus according to Claim 1~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups; and

wherein the objective lenses, ~~the~~ a zooming mechanism, and the image-forming lenses are attached on the same axis disposed in the vertical direction and are attached in a manner such that they are rotatable around the axis.

14. (Currently Amended) ~~The examination apparatus according to Claim 1~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups;

wherein the objective lenses, ~~the~~ a zooming mechanism, and the image-forming lenses are attached on at least two axes disposed in the vertical direction and are attached in a manner such that they are rotatable around the axes, and

wherein the objective lenses and the zooming mechanism are attached in a manner such that they are rotatable around different axes.

15. (Currently Amended) The examination apparatus according Claim 13, further comprising:

a horizontally mounted base;

at least two support stands extending from the base in the vertical direction along the axes; and

a beam member bridged across the upper ends of the support stands,

wherein the image-capturing unit is fixed to the beam member.

16. (Original) The examination apparatus according Claim 15, wherein the optical axis is disposed at a position away from a plane including the axes of said at least two support stands.

17. (Currently Amended) The examination apparatus according to Claim 15, wherein the objective lenses, the zooming mechanism, and the image-forming lenses are attached to the support [[stand]] stands in a manner such that they are rotatable around the axis of the support stand by an assembly including a cylindrical fixed bracket fixed to the support stand by being engaged with the upper portion of the support stand; a movable bracket for fixing the objective lenses, the zooming mechanism, and the image-forming lenses; and a bearing for installing the movable bracket to the fixed bracket in a manner such that the movable bracket is horizontally rotatable.

18. (Previously Presented) The examination apparatus according to Claim 15, wherein the base includes a first base for fixing the stage and a second base provided above the first base with a space provided therebetween, and wherein the first base and the second base are fixed by spacing members and the support stands are fixed to the second base.

19. (Original) The examination apparatus according to Claim 18, wherein the spacing members are replaceable.

20.-21. (Cancelled)

22. (Currently Amended) ~~The examination apparatus according to Claim 1~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups; and

wherein the image-capturing unit is replaceable.

23. (Currently Amended) ~~The examination apparatus according to Claim 1~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups; and

wherein the image-capturing unit is disposed in a manner such that it is rotatable around the optical axis.

24. (Original) A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens; and

a lens-group-switching mechanism for switching among the lens groups.

25. (Original) The fluoroscopy apparatus according to Claim 24, further comprising:

a processing unit for carrying out spectral deconvolution processing on the captured fluorescence.

26. (Currently Amended) The fluoroscopy apparatus according to Claim ~~21~~ 22, ~~wherein the processing unit carries out spectral blind deconvolution processing~~ further comprising:

a processing unit for carrying out spectral deconvolution processing on the captured fluorescence.

27. (Original) ~~The examination apparatus according to Claim 1~~ A fluoroscopy apparatus comprising:

a laser light source for emitting excitation light to a specimen placed on a stage;

a plurality of lens groups, each group including an objective lens for magnifying fluorescence from the specimen, the objective lens opposing the stage, and an image-forming lens for imaging the fluorescence from the specimen magnified by the objective lens;

an image-capturing unit for capturing the fluorescence from the specimen imaged by the image-forming lens;

a lens-group-switching mechanism for switching among the lens groups;

the specimen is a living organism, an organ, or tissue,

the light source is an illumination device for internally illuminating the specimen, and

the image-capturing unit is an image-capturing device for obtaining an optical image of at least one of a transmission image and a fluorescence image of the specimen by capturing an external image of the specimen.

28. (Original) The examination apparatus according to Claim 27, wherein the illumination device includes a light source for emitting illumination light or excitation light and a light-emitting unit for externally emitting the illumination light or the excitation light, and wherein the light-emitting unit is guidable into the specimen.

29. (Original) The examination apparatus according to Claim 27, wherein the living organism is a living mammal selected from the group consisting of mouse, rat, rabbit, cat, dog, pig, cow, sheep, goat, horse, monkey, gorilla, chimpanzee, and human.

30. (Original) The examination apparatus according to Claim 27, wherein the organ is an organ selected from the group consisting of brain, lung, liver, spleen, bone marrow, thymus, heart, lymph, blood, bone, cartilage, pancreas, liver, gall bladder, stomach, intestine, testis, ovary, uterus, rectum, nervous system, gland, and blood vessel.

31. (Original) The examination apparatus according to Claim 27, wherein the tissue is a three-dimensional structure of a plurality of cells.